Table 2-1

Toxicological and Physical Properties of Chemicals
Former Rifle Grenade Range, Parcel 221Q-X
Fort McClellan, Calhoun County, Alabama

Substance [CAS]	IP[a] (eV)	Odor Type & Threshold (ppm)	Route[b]	Symptoms of Exposure	Treatment	TWA[c]	STEL[d]	Source[e]	IDLH (NIOSH)[f]
Lead inorganic dusts & fumes (as Pb) [7439-92-1]	NA	NA	Inh Ing Con	Weakness, lassitude, insomnia; facial pallor; eye pallor, low body weight, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremors; wrist and ankle paralysis; brain damage; kidney damage; irritated eyes; hypotension.	Eye: Irrigate immediately Skin: Soap flush promptly Breath: Respiratory support Swallow: Immediate medical attention	0.05 mg/m^3 0.05 mg/m^3 (NIC) (CA - See 29 CFR 1910.1025)	NA NA	PEL TLV	100 mg/m^3 (as Pb)
2,4,6-Trinitrotoluene (TNT) [118-96-7]	10.59	odorless	Inh Abs Ing Con	Liver damage, jaundice; cyanosis; sneezing coughing, sore throat; peripheral neuropathy, muscular pain; kidney damage; cataract; sensitive dermatitis; leukocytosis; anemia; cardiac irregularities.	Eye: Irrigate immediately Skin: Soap wash promptly Breath: Respiratory support Swallow: Immediate medical attention	1.5 mg/m^3 (skin) 0.1 mg/m^3 (skin)	NA NA	PEL TLV	500 mg/m^3

[a]IP = Ionization potential (electron volts).
[b]Route: Inh = Inhalation; Abs = Skin absorption; Ing = Ingestion; Con = Skin and/or eye contact.
[c]TWA = Time-weighted average. The TWA concentration for a normal work day (usually 8 or 10 hours) and a 40-hour work week, to which nearly all workers may be repeatedly exposed, day after day without adverse effect.
[d]STEL = Short-term exposure limit. A 15-minute TWA exposure that should not be exceeded at any time during a workday, even if the TWA is not exceeded.
[e]Source: PEL = Permissible Exposure Limit (OSHA - 29 CFR 1910.1000, Table Z); TLV = Threshold Limit Value (ACGIH); NIOSH = National Institute for Occupational Safety and Health; WEEL = Workplace Environmental Exposure Level (AIHA).
[f]IDLH (NIOSH) = Immediately dangerous to life or health (NIOSH). Represents the maximum concentration from which, in the event of respirator failure, one could escape within 30 minutes without a respirator and without experiencing any escape-impairing or irreversible health effects.
ppm = Parts per million.
mg/m^3 = Milligrams per cubic meter.
skin = Danger of cutaneous absorption.
ND = No evidence could be found for the existence of an IDLH (National Institute for Occupational Safety and Health Pocket Guide to Chemical Hazards, Pub. No. 94-116, June 1994).
C = Ceiling limit value which should not be exceeded at any time.
Ca = Carcinogen.
NA = Not applicable or not available.
LEL = Lower explosive limits.
LC_{50} = Lethal concentration in air for 50 percent of population tested.
LD_{50} = Lethal dose for 50 percent of population tested.
NIC = Notice of intended change (ACGIH).

References:

Guide to Occupational Exposure Values - 1997, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).
Lewis, Richard J., Sr., 1992, Sax's Dangerous Properties of Industrial Materials, 8th ed., Van Nostrand Reinhold, New York.
Micromedex Tomes Plus (R) System, 1995, Micromedex, Inc.
Pocket Guide to Chemical Hazards, Pub. No. 94-116, June 1994, National Institute for Occupational Safety and Health (NIOSH).
Odor Threshold for Chemicals with Established Occupational Health Standards, American Industrial Hygiene Association (AIHA), 1989.
Workplace Environmental Exposure Levels, American Industrial Hygiene Association (AIHA), 1995.